SOV/65-58-10-11/15

AUTHORS: Maslov, P. G. and Maslov, Yu. P.

TITLE: Heat of Formation of Halogen-Substituted Methane and Ethylene (Teploty obrazovaniya galoidzameshchennykh metana i etilena)

PERIODICAL: Khimiya i Tekhnologiya Topliv i Masel, 1958, Nr 10, pp 50 - 55 (USSR)

ABSTRACT: The authors recently described a method for calculating the thermodynamic properties of halogen-substituted methane and other compounds (Ref.10) at temperatures varying between 100 to 1500°K, and now give details of a method for calculating the heat of formation ΔH_f^0 for halogen-substituted methane and ethylene at 25°C. Results obtained by this method conform with data given by other authors (Refs.13 - 25). The accuracy of the calculated results varies between 0 to 5%, and in some cases 10%. The heats of formation of halo-substituted methane in the gaseous phase at 25°C (in ccal/mole) (Table 1) and for halo-substituted ethylenes in the gaseous phase at 298.16°K (Table 2) are given. The authors suggest that their calculation is sufficiently accurate for experimental purposes. They also ascertain the heats of formation of bromine, iodine and

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Heat of Formation of Halogen-Substituted Methane and Ethylene

fluorine-substituted ethylene which have not previously been described in literature (Table 2). There are 2 Tables and 25 References: 13 English, 10 Soviet and 2 German.

AUTHORS: Maslov, Yu. P., Maslov, P. G. SOV/76-32-8-4/37

TITLE: A Method of Calculating the Thermodynamic Properties of Some Compounds Without Knowing Their Vibration Spectra (Metod rascheta termodinamicheskikh svoystv nekotorykh soyedineniy bez znaniya ikh kolebatel'nykh spektrov)

PERIODICAL: Zhurnal fizicheskoy khimii, 1958, Vol. 32, Nr 8, pp. 1715-1725 (USSR)

ABSTRACT: The possibility of applying this method to organic and inorganic compounds is investigated. It is based on the knowledge of the structure and the vibration spectra of the molecules of other, sometimes more simple compounds, which generally seen may also belong to another homologous series. The halogen derivatives of methane, ethane, ethylene, ethine, and other compounds offer good prospects for this method. Also compounds in which one or several atoms were substituted by atoms of the elements belonging to one of the side chains of the D. I. Mendeleyev table belong to these compounds. The problem is to find the values of a thermodynamic property A for the entire family of compounds, with the quantity A being known only for some simple representatives of this family (on the same conditions). Some

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data of each single representative of the whole family must be known, however, or it must be possible to calculate them. In the calculations carried out the data by Pitzer (Pitser) (Refs 1, 7), Pitzer and Gwinn (Gvin) (Ref 7), as well as by Pitzer and Gelles (Ref 8) are mentioned. This way the thermodynamic properties as well as the heat capacity and the entropy of a number of the halogen hydrocarbons mentioned above were calculated. The results obtained agree with those mentioned in reference 8; they are given in a table. There are 6 tables and 17 references, 8 of which are Soviet.

SUBMITTED: November 29, 1956

AUTHORS: Maslov, P. G., Maslov, Ya. P. SOV/153-2-4-9/32

TITLE: Thermodynamic Properties of Compounds Containing Lanthanides

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy. Khimiya i khimicheskaya tekhnologiya, 1959, Vol 2, Nr 4, pp 516 - 521 (USSR)

ABSTRACT: Although the compounds mentioned in the title are considered with great interest (Refs 1-3) their thermodynamic properties are but little investigated (Refs 1-3). Their investigation could be somewhat extended (Refs 4-10) by methods developed recently (Refs 4,5). In the paper under review the properties mentioned of the compounds containing lanthanides in crystalline state and in solutions at 25° are discussed. As is known, a given thermodynamic property A of any constituent of a group of related compounds, e.g. of halides of the type $BF_iCl_jBr_kJ_q$, can be computed with great accuracy according to formula (1); n=i+j+k+q; B = a group of atoms equal for all representatives of the group of compounds under discussion; BF_n, BCl_n, BBr_n and BJ_n are the simplest representatives of the group; the values of the thermodynamic property of the latter are known in advance and with sufficient accuracy. By using the method of reference 5, the

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authors determined the formation heats $(-\Delta H^{o}_{f})$, free energies $(-\Delta Z^{o}_{f})$, logarithms of the equilibrium constant $(\log K_{f})$, and entropies (S^{o}) of several halides of: scandium, yttrium, lutetium, thul, erbium, holmium, dysprosium, gadolinium, samarium, neodymium, praseodymium, cerium, and lanthanum. The computation results are shown in tables 1,2, and 4. Moreover, the authors obtained approximate general formulas for the determination of the formation heats, free energies, logarithms of the equilibrium constant, entropy, and heat capacity (C^{o}_{p}) of the groups of lanthanide crystallohydrates on account of the methods described in references 5 and 11. These groups were: $X_2(SO_4)_3 \cdot nH_2O$ (X=Y, Lu, Yb, Er, Ho, Dy, Tb, Gd, Eu, Sm, Nd, Pr, Ce, La). $XO_3 \cdot nH_2O$ (X= Nd, Pr, Ce), $Er_2(C_2H_3O_2)_2 \cdot nH_2O$, and ammoniates $XCl_3 \cdot mNH_3$ (X= Sm, Nd, and Ce). All these formulas are shown in table 5, Table 3 shows a comparison of results computed by means of formulas with experimental data for several compounds. The results are in good agreement (accuracy

of a magnitude of 0.2-1%). There are 5 tables, and 11 references, 10 of which are Soviet.

ASSOCIATION: Leningradskiy mekhanicheskiy institut, Kafedra fiziki (Leningrad Mechanics Institute, Chair of Physics)

SUBMITTED: September 10, 1957

5 (4)

AUTHORS: Maslov, P. G., Maslov, Yu. P. (Leningrad) SOV/76-33-8-2/39

TITLE: Thermodynamic Characteristics of Crystalline Compounds Containing Lithium III

PERIODICAL: Zhurnal fizicheskoy khimii, 1959, Vol 33, Nr 8, pp 1687-1690 (USSR)

ABSTRACT: General approximation equations for the evaluation of the heat of formation (HF) and some other thermodynamic properties of crystalline compounds containing lithium were obtained for 25°C by means of the methods by P. G. Maslov (Refs 3, 5) from the corresponding data of the manual by T. D. Rossini et al (Ref 6). The calculation data, based on the principle of additivity, are given (Tables 1, 2) as well as the values obtained for (HF) - ΔH_f^o, the free energy - ΔF_f^o, the logarithms of the constants of chemical equilibrium log K_f, of the entropy S^o, and of the molar specific heat C_p^o for some crystal hydrates and ammonistes of the lithium compounds and other groups of compounds in the solid phase at 25°C (Tables 3, 4). A comparison with the data obtained from (Ref 6) shows a good agreement. The accuracy of the equations mentioned is sufficient for preliminary technological calculations

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and is, on an average 0.2-1 %, in some individual cases 1-10 %.
There are 4 tables and 6 references, 5 of which are Soviet.

2.3300, 5.4700

77514
SOV/80-33-1-23/4

AUTHORS: Maslov, P. G., Maslov, Yu. P.

TITLE: Some Approximate Formulas for the Determination of Heat of Combustion and Heat of Formation of Gaseous Alkadienes

PERIODICAL: Zhurnal prikladnoy khimii, 1960, Vol 33, Nr 1, pp 134-140 (USSR)

ABSTRACT: Thermodynamic and other properties of chemical compounds can be expressed by the equation

$$A = a_1 + a_2 \cdot z \quad (\text{at } z \geqslant 4) \qquad (1)$$

where a_1 is an increment identical for the whole given homologous series; a_2 is the part of the characteristic A corresponding to the methyl group CH_2 in the linear chain C-C-C-...; z is the number

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of CH_2-groups or C-atoms in this chain (P.G. Maslov, ZhFKh., 1952, Vol 26, p 1311; ibid., 1953, Vol 27, p 509). In the present study the authors established general formulas of type (1) for the determination of the heat of combustion and heat of formation of gaseous alkadienes at 25° C. The alkadienes were separated into groups having similar molecular structures, and the following formulas were suggested for the determination of the heat of combustion at 25° C under constant pressure: for 1-cis-3-alkadienes:

$$-\Delta Hc^{\circ} = (-24.31 + 157.44z) \text{ Cal/mole}$$

for 1-trans-3-alkadienes:

$$-\Delta Hc^{\circ} = (-25.24 + 157.44z) \text{ Cal/mole}$$

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Some Approximate Formulas for the Determination of Heat of Combustion and Heat of Formation of Gaseous Alkadienes

77514
SOV/80-33-1-23/49

for 2 methyl-1-cis-3-alkadienes:

$$-\Delta Hc^{o} = (130.16 + 157.44z)\text{Cal/mole}$$

and so on. The above can be expressed by a general formula for alkadienes:

$$-\Delta Hc^{\circ}_{gas} = -\left[24.31 - 15.42k_1 - 6k_2 + 0.938 \sin\frac{\varphi}{2} - 154.47m_1 + 155.7m_2 + 1.63(\sigma - 1)\right] + 157.44z \quad (at\ z \geq 4), \qquad (2)$$

where k_1 is the number of C=C-bonds having a common C-atom; k_2 is the number of C=C-bonds separated by 2 or more C-C-bonds in the main carbon chain of the alkadiene (e.g., in 1,2-alkadienes $k_2 = 0$, $k_1 = 1$;

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in 1,5-alkadienes $k_1 = 0$, $k_2 = 1$; etc); φ is the angle of rotation of C=C-bonds from the original cis- into trans- or trans-trans-position (it is assumed that this angle is 0 in cis- or cis-cis-configurations and is equal to π in cis-trans-trans- or trans-trans-configurations); δ is the number of rotations of C=C-bonds around the axis passing through the bond=C-C=, from cis- or cis-cis-position into trans-, cis-trans-, or trans-trans-position (e.g., in 1-trans-3-alkadienes, $\delta = 1$ and $\varphi = \pi$; in 2-methyl-trans-2-trans-4 alkadienes, $\delta = 2$, $\varphi = \pi$); m_1 is the number of methyl groups in the molecule which replaced H-atoms at the second and last-but-one C-atoms in the main alkadiene chain, and which took part in the formation of C=C-bonds; m_2 is the number of methyl groups which replaced H-atoms

belonging to the remaining C-atoms of the carbon chain; σ is the smallest ordinal number of the C-atom with the first C=C-bond; z is the number of C-atoms in the unbranched alkadiene (e.g. z = 5 in all pentadienes). The heat of combustion in Eq. 2 is expressed in Cal/mole; the equation is valid for alkadienes with $z \geqslant 4$, and gives only approximations with $z \leqslant 4$. The heat of formation of gaseous alkadienes at 25° C from the elements can be expressed similarly by the equation

$$-\Delta H^\circ_{\text{form. (gas.)}} = -\left[44.02 - 15.42 \cdot k_1 - 6k_2 - 0.93\vartheta \sin\frac{\varphi}{2} - 7.9m_1 - 6.00m_2 - 1.63(\sigma - 1)\right] + 4.93z \quad (\text{for } z \geqslant 4) \qquad (3)$$

and the heat of formation from atoms is correspondingly

Some Approximate Formulas for the Determination of Heat of Combustion and Heat of Formation of Gaseous Alkadienes

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SOV/80-33-1-23/49

$$-\Delta H^{\circ}_{FORM(AB)} = -\left[148.39 - 14.42k_1 + 6k_2 \quad 0.938 \sin\frac{\varphi}{2} - \right.$$
$$\left. - 238.44m_1 - 237.22m_2 - 1.63(\sigma - 1)\right] + 235.5\pi \quad (\sigma\tau = \geq 4). \qquad (4)$$

The values obtained from Eq. 2-4 are approximations, which are close enough, however, to the best experimental data to serve in technological calculations. The errors do not exceed 1 to 1.5%. Comparative tables of calculated and experimental heats of combustions and heats of formations of numerous alkadienes are given. There are 2 tables; and 8 references, 2 U.S., 6 Soviet. The U.S. references are: J. Research Natl. Bur. of Standards, 1951, Vol 46, p 106; F. D. Rossini, K. S. Pitzer, R. L. Arnett, R. M. Braun, G. C. Pimentel, Selected Values of Physical and Thermodynamic Properties of Hydrocarbons

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77514
SOV/80-33-1-33/[illegible]

Some Approximate Formulas for the Determination of Heat of Combustion and Heat of Formation of Gaseous Alkadienes

and Related Compounds, Publ. A. P. I., Pittsburgh, Pa., 1953, p 458.

SUBMITTED: May 10, 1956; resubmitted, 1959.

Card 7/7

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11.2219

S/661/61/000/006/058/081
D267/D302

AUTHORS: Maslov, P. G. and Maslov, Yu. P.

TITLE: A new statistical method of calculating thermodynamic properties

SOURCE: Khimiya i prakticheskoye primeneniye kremneorganicheskikh soyedineniy; trudy konferentsii, no. 6: Doklady, diskussii, resheniye. II Vses. konfer. po khimii i prakt. prim. kremneorg. soyed., Len. 1958. Leningrad, Izd-vo AN SSSR, 1961, 240-258

TEXT: The authors present a new generalized version of the statistical method, based on the results of their earlier research work. The new method differs from the conventional methods by a great simplicity of operation, associated with great accuracy, close to that of the widely known methods, which, however, necessitate knowledge of vibrations spectra, electronic levels and of the nature of stopped rotations. The molecular characteristics (molecular weights, principal moments of inertia and symmetry numbers)

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A new statistical method... S/081/61/000/006/058/081 B267/B302

are required only for calculating the properties of the type of entropy and of the $\bar{\Phi}^{*}$-potential. Properties such as heat capacity, heat content, heats of combustion and formation, physico-chemical characteristics of vaporization, ionization potentials, energies of dissociation, boiling points and critical parameters are obtained directly from formulas. The method can be applied to all compounds, in particular to organosilicon, organo-metallic and inorganic compounds. The calculated results are in very good agreement with the results of measurements, and with the [illegible] made by other authors. Three numerical examples are given. There are 3 tables and 28 references: 21 Soviet-bloc and 7 non-Soviet-bloc. The 4 most recent references to the English-language publications read as follows: A. S. Friedman and L. Haar, J. Chem. Phys., 22, 2051, (1954); E. V. [illegible], [illegible] and K. S. Pitzer, J. Chem. Phys., 23, 1814, (1955); C. H. Li, [illegible] and K. S. Pitzer, J. Phys. Chem., 60, 466, (1956); G. J. [illegible] and [illegible], Jr., J. Chem. Phys., 26, 1766, (1957).

Card 2/2

37770
S/661/61/000/006/060/081
D267/D302

15.8.170
5.4800

AUTHOR: Maslov, Yu. P.

TITLE: Thermodynamic characteristics of the phase transitions of some organosilicon compounds

SOURCE: Khimiya i prakticheskoye primeneniye kremneorganicheskikh soyedineniy; trudy konferentsii, no. 6; Doklady, diskussii, resheniye. II Vses. konfer. po khimii i prakt. prim. kremneorg. soyed., Len. 1958. Leningrad, Izd-vo AN SSSR, 1961, 265-271

TEXT: Siloxanes and halogenated silanes play a substantial role in modern industry, but their thermodynamic properties have so far been insufficiently studied. Out of the available methods which can be used for calculating various thermodynamic constants the author recommends his own methods (Ref. 8: Optika i spektr., 3, 38, (1957)); (Ref. 9: ZhFKh, 32, 1715, (1958)); (Ref. 10: ZhFKh, 35, 164, (1961)), characterized by simplicity of operation and good accura-

Card 1/2

Thermodynamic characteristics of ...

cy. The results of various thermodynamic characteristics of phase transitions, obtained by this method for halogen derivatives of silane, disilane and disiloxane, are presented in tabular form; they include ΔH, ΔS and the temperature of vapor formation. The agreement with experimental data is good (in the case of halogen-substituted compounds without hydrogen the difference amounts to: 0.2 - 1% for the temperature, 1 - 3% for the heat, and up to 10% for entropy; the differences are greater for compounds containing hydrogen). There are 3 tables and 10 references: 9 Soviet-bloc and 1 non-Soviet-bloc. The reference to the English-language publication reads as follows: F. D. Rossini, D. D. Wagman, W. H. Evans, S. Levine and J. Jaffe, 'Selected value of chemical thermodynamic properties', Washington, (1952).

ASSOCIATION: Leningradskiy mekhanicheskiy institut (Leningrad Institute of Mechanics)

Card 2/2

MASLOV, P.G. (Leningrad); MASLOV, Yu.P. (Leningrad)

Method of computing thermodynamic properties without the knowledge of electronic and vibrational spectra. Zhur. fiz. khim. 35 no.1: 164-175 Ja '61. (MIRA 14:2)

(Thermodynamics)

MASLOV, Yu.P. (Leningrad)

Thermodynamic characteristics of the melting and vaporization of some halides and of their crystal hydrates. Zhur. fiz. khim. 35 no.5:974-976 My '61. (MIRA 16:7)

(Halides) (Heat of vaporization)
(Melting points)

MASLOV, P.G.; MASLOV, Yu.P.

Determination of the heats of combustion and evaporation of benzene derivatives. Khim. prom. no.8:594-596 Ag '63. (MIRA 16:12)

L 36830-66 EWT(m)/EWP(t)/ETI IJP(c) ES/WW/JW/JD/JG

ACC NR: AP6014090 SOURCE CODE: UR/0079/65/035/012/2112/2115

57

AUTHOR: Maslov, P. G.; Maslov, Yu. P.

B

ORG: Leningrad State Pedagogic Institute im. A. I. Gertsen (Leningradskiy gosudarstvennyy pedagogicheskiy institut)

TITLE: Heat of formation of some halides of thorium, protoactinium, uranium, neptunium, and americium

SOURCE: Zhurnal obshchey khimii, v. 35, no. 12, 1965, 2112-2115

TOPIC TAGS: heat of formation, halide, protoactinium, uranium, thorium, neptunium, americium

ABSTRACT: The present article contains calculations of the heat of formation of the above compounds based on previously published literature data. Extensive tables give values of the heat of formation for approximately 240 distinct compounds. It is stated that the accuracy of the figures given is not always too great. The possible absolute error in the calculation is of the order of ±5-10 kcal/mole, but not greater. Orig. art. has: 3 tables.

SUB CODE: 07, 20/ SUBM DATE: 190ct64/ ORIG REF: 010/ OTH REF: 003

Card 1/1 UDC: 511.115:546.79

MASLOV, Yu.S.

Basic characteristics of the formation of certain types of gold ore deposits. Razved.i okh.nedr 25 no.11:9-12 N '59. (MIRA 13:5)

1. Yakutskoye geoloupravleniye.
(Siberia, Eastern--Gold ores)

MASLOV, Yu.S.

Gold-bearing karst. Priroda 51 no.4:119 Ap '62. (MIRA 15:4)

1. Kompleksnaya ekspeditsiya Yakutskogo geologicheskogo upravleniya, Aldan.

(Yakutia--Gold ores)

LEMAN, Ye.P.; MASLOV, Yu.S.; KHOLMYANSKIY, M.A.

Practice of using geophysical studies made in holes during prospecting for gold deposits in southern Yakutia. Razved.i okh. nedr 29 no.1: 46-50 Ja '63. (MIRA 16:2)

1. Timptono-Uchurskaya ekspeditsiya.
(Yakutia—Gold ores) (Prospecting—Geophysical methods)

SLOBODYANIK, O.P. [Slobodianyk, O.P.]; MASLOV, Yu.V., doktor med. nauk, prof., otv. red.

[Forensic psychiatry] Sudova psykhiatriia. L'viv, Vyd-vo L'vivs'koho univ., 1963. 158 p. (MIRA 18:2)

1. Zaveduyushchiy kafedroy psikhiatrii L'vovskogo Gosudarstvennogo meditsinskogo instituta (for Maslov).

MASLOVA, A.A.

Water balance of gleyey-turf and gleyey soils drained by subsurface drainage in the Yakhroma Valley. Pochvovedenie no.9:25-32 S '64. (MIRA 17:12)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut gidrotekhniki i melioratsii.

SOV/137-58-11-23078

Translation from: Referativnyy zhurnal. Metallurgiya, 1958, Nr 11, p 178 (USSR)

AUTHORS: Pavlov, S. Ye., Maslova, A. F.

TITLE: Intercrystalline Corrosion and Stress Corrosion of D16-T Alloy Pipes (Mezhkristallitnaya korroziya i korroziya pod napryazheniyem trub iz splava D16-T)

PERIODICAL: V sb.: Korroziya i zashchita metallov. Moscow, Oborongiz, 1957, pp 218-235

ABSTRACT: A study was made of the susceptibility to intercrystalline corrosion (IC) of D16-T alloy pipes as received after they had been tested in a solution of 3% NaCl + 1% HCl for 48 hours. The susceptibility to IC discovered in pipes quenched after heat treatment in a saltpeter bath is explained by their excessively prolonged exposure to air before quenching which was due to certain shop conditions. Quenching after heating in air-circulation pit furnace cuts down the time needed for the transfer into the quenching tank to 3 sec, yet the tendency towards IC is not totally eliminated; a localized character of corrosion is noticed along the length of the pipe as well as in its separate sections, which fact can be tentatively explained by the effect of internal

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Intercrystalline Corrosion and Stress Corrosion (cont.)

stresses originating during the quenching on the borders of adjacent differently oriented grains. Stress-corrosion in pipes increases with an increase in susceptibility to IC. Sizing of pipes sharply decreases their resistance to stress-corrosion since it causes high local residual stresses. With high sensitivity to IC the anodic film (without additional protection by ALG-1, ALG-7, and AG-3 under coating) promotes corrosion cracking. It is necessary to protect anodized pipes with coats of varnish.

O. M.

MASLOVA, A.F. (Moskva)

Modification in the adrenalin content of the blood and aqueous humor in a rabbit following irradiation [with summary in English]. Biul. eksp.biol. i med. 46 no.9:81-84 S '58 (MIRA 11:11)

1. Predstavlena deystvitel'nym chlenom AMN SSSR V.V. Parinym.

(EPINEPHRINE, metab.
aqueous humor & blood, eff. of x-rays in rabbits (Rus))
(AQUEOUS HUMOR, metab.
epinephrine, eff. of x-rays in rabbits (Rus))
(ROENTGEN RAYS, effects
on aqueous humor & blood epinephrine content in rabbits (Rus))

MASLOVA, A.F., Cand Biol Sci -- (diss) "On the problem of changes in the content of adrenergic substances ~~in rabbits exposed to radiation~~ after irradiation of rabbits." Mos, 1959, 11 pp (Acad Med Sci USSR) (KL, 36-59, 114)

MASLOVA, A.F.

Mechanism of disturbances in the amount of adrenaline and adrenaline-like substances in the blood and aqueous humor of rabbits following total-body irradiation. Med.rad. 4 no.12:36-41 D '59.
(MIRA 13:5)

(EPINEPHRINE metab.)
(NOREPINEPHRINE metab.)
(AQUEOUS HUMOR metab.)
(RADIATION EFFECTS)

MASLOVA, A.F.

Polarographic method of determining adrenalin noradrenaline and substances with certain properties of adrenaline oxidation products. Biokhimiia 24 no.2:181-186 Mr-Ap '59. (MIRA 12:7)
(EPINEPHRINE, determ.
polarography of epinephrine & of substances with properties similar to epinephrine oxidation prof. (Rus))

MASLOVA, A. F., (USSR)

"Ionizing Radiation Induced Disturbances of Nervous Regulation of Catecholamine Uptake by Effector Organ."

Report presented at the 5th Int'l. Biochemistry Congress, Moscow, 10-16 Aug 1961.

39275
S/219/62/053/001/002/007
I015/I215

27.2400

AUTHOR: Maslova, A. F.

TITLE: Biological activity of catecholamines in rabbits at various intervals after irradiation

PERIODICAL: Byulleten' eksperimental'noy biologii i meditsiny, v. 53, no. 1, 1962, 25–28

TEXT: Acute radiation sickness was elaborated in 12 female rabbits, which were subjected to irradiation of 400 r. The experiments lasted for 3 to 4 weeks; all the animals survived that period of time. Blood samples were examined for their catecholamine contents, before irradiation, and at various time intervals thereafter. Catecholamines are biologically active during the entire course of radiation sickness. There are 3 figures.

SUBMITTED: March 16, 1961

Card 1/1

MASLOVA, A.F.

Quantitative determination of acetylcholine in biological matter by means of a polarographic analytical method. Vop.med.khim. 10 no.3:311-316 My-Je '64. (MIRA 18:2)

1. Institut biofiziki Ministerstva zdravookhraneniya SSSR, Moskva.

ACC NR: AT6036649 SOURCE CODE: UR/0000/66/000/000/0273/0274

AUTHOR: Maslova, A. F.

ORG: none

TITLE: Problem of participation of the sympathetic-adrenal system of rabbits in the formation of compensatory reactions to changed environmental conditions /Paper presented at the Conference on Problems of Space Medicine held in Moscow from 24-27 May 1966/

SOURCE: Konferentsiya po problemam kosmicheskoy meditsiny, 1966. Problemy kosmicheskoy meditsiny. (Problems of space medicine); materialy konferentsii, Moscow, 1966, 273-274

TOPIC TAGS: isolation, hypodynamia, isolation test, animal physiology, hermetic chamber

ABSTRACT:

Exposure of an organism to the unaccustomed conditions of a hermetically sealed space of limited volume brings about the formation of a definite nervous system reaction. This reaction, in all probability, is very complex and develops in a number of stages. On the one hand it was noted that environment acted as a stimulus to the functional state of the nervous system, as a result of which the blood of rabbits was observed to contain a greater number of blood mediators--adrenalin and acetylcholine--thoughout

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the observation period. On the other hand, however, the nervous system reacts in turn to altered environmental conditions by causing the organism to assume a set of symptoms which make up, in the final analysis, the general adaptation reaction. In the formation of this reaction, an important, almost universal, and largely initiative role must be assigned to the function of the sympathetic-adrenal system (L. A. Orbeli, A. V. Lebedinskiy, V. Kennon). It has been shown that the most "difficult" period for rabbits is the first two hours of isolation, which require a great amount of catecholamines. The necessary amounts of mediators are supplied to the blood, and thence to tissue, from reserves located at their formation sites (adrenal glands and nerve terminals). In the subsequent hours and days of the organism' s sojourn in a hermetically sealed space, a relationship is established between the organism and the environment providing for the most economical operation of the nervous system as a whole. In this respect the data presented supplement the hypothesis of A. V. Lebedinskiy that a certain amount of time is required for the formation of the adaptation reaction. It may also be assumed that readjustment of the organism occupies the first six hours. Noradrenalin participates in the formation of this reaction. Enhanced noradrenalin synthesis in the first hours of isolation has been demonstrated both in the adrenals and in the tissues of the upper cervical sympathetic ganglion. The high noradrenalin content is a fairly

ACC NR: AT6036649

stable value; noradrenalin blood level is increased by training and remains elevated for a long time.

[W.A. No. 22; ATD Report 66-116]

SUB CODE: 06 / SUBM DATE: 00May66

Card 3/3

MASLOVA, A.I.

VVEDENSKAYA, N.Ye.; VOLOSYANKIN, G.D.; MASLOVA, A.I.; RUBTSOVA, N.A.

Organization of occupations for tuberculous patients. Probl. tuberk., Moskva No.6:63-66 Nov-Dec 51. (CIML 21:4)

1. Of Krasnodar Scientific-Research Institute of Tuberculosis (Director Prof. A.L. Samoylovich).

Maslova, A.S.

MASLOVA, A.S.; PLODOVSKAYA, L.A.

Gonadotropins and estrogens in normal and weak labor activity [with summary in English]. Akush. i gin. 33 no.4:24-29 Jl-Ag '57. (MIRA 10:11)

1. Iz Instituta akusherstva i ginekologii Ministerstva zdravookhraneniya RSFSR (dir. L.G.Stepanov)

(GONADOTROPINS, physiol.
in normal & weak labor activity)
(ESTROGENS, physiol.
same)
(LABOR, physiol.
estrogen & gonadotropin activity in normal & weak labor activity)

MASLOVA, A.S. (Moskva)

Rh factor in obstetrics. Fel'd. i akush. 27 no.4:22-25 Ap '62.
(MIRA 15:6)

(RH FACTOR)
(ERYTHROBLASTOSIS FETALIS)

L 58944-65 EWT(m)/EWP(w)/EWA(d)/T/EWP(t)/EWP(b)/EWA(c) IJP(c) JD/JG

ACCESSION NR: AP5017473 UR/0370/65/000/003/0128/0130

669.017.12

AUTHOR: Terekhova, V. F. (Moscow); Maslova, E. V. (Moscow); Savitskiy, Ye. M. (Moscow)

TITLE: Phase diagram of the iron-neodymium system

SOURCE: AN SSSR. Izvestiya. Metally, no. 3, 1965, 128-130

TOPIC TAGS: iron, neodymium, iron neodymium system, iron neodymium alloy, alloy phase diagram, alloy structure, alloy hardness

ABSTRACT: Iron-neodymium alloys containing 0—100 wt% Nd were vacuum melted from 99.9%-pure Fe and 99.0%-pure Nd in a nonconsumable tungsten electrode arc furnace in an atmosphere of helium, under a pressure of 300—400 mm Hg. Depending on the composition, the alloys were vacuum annealed at temperatures ranging from 900 to 600C for 130 hr and subjected to various methods of physicochemical analysis. On the basis of the results obtained, a phase diagram of the Fe-Nd system (see Fig. 1 of the Enclosure) was plotted. The alloy containing 24 wt% Nd was found to be a single-phase chemical compound corresponding to the stoichiometric Nd_2Fe_{17} composition. A second chemical compound was found in alloys containing more than 50 wt% Nd. The

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ACCESSION NR: AP5017473

largest amount of this compound was in alloys similar in composition to $NdFe_2$ compound. A fine-grain eutectic was observed in the system at 88.5% Nd. The Nd_2Fe_{17} and $NdFe_2$ compounds are formed with peritectic reactions at 1185 and 1130 ± 10C, respectively. Nd_2Fe_{17} has a Th_2Zn_{17}-type structure with the lattice parameters a = 8.59 Å, c = 12.47 Å, and c/a = 1.451. The structure of the second metallic compound has not yet been identified, but preliminary data show it is not a Laves phase. Additions of Nd increase the hardness of α-iron solid solutions. With increasing content of the second phase, the hardness of the alloy increased. In the concentration range of 15—60 wt% Nd, the alloys became very brittle. The microhardness of Nd_2Fe_{17} was 730 kg/mm² and that of $NdFe_2$, 560 kg/mm². Orig. art. has: 2 figures. [WW]

ASSOCIATION: none

SUBMITTED: 06Jul64 ENCL: 01 SUB CODE: MM, SS

NO REF SOV: 002 OTHER: 003 ATD PRESS: 4051

Card 2/3

L 1358-66 EWT(m)/EWP(w)/EWG(m)/T/EWP(t)/EWP(b) IJP(c) RDW/JD
ACCESSION NR: AP5021942 UR/0126/65/020/002/0299/0301
546.657:538.214

AUTHOR: Chechernikov, V.I.; Speranskiy, N.M.; Maslova, E.V.; Terekhova, V.F.

TITLE: Magnetic properties of iron-neodymium alloys

SOURCE: Fizika metallov i metallovedeniye, v. 20, no. 2, 1965, 299-301

TOPIC TAGS: iron containing alloy, neodymium containing alloy, magnetic properties, constitution diagram, ferromagnetic region, paramagnetic region, Curie point, antiferromagnetic interaction, three sublattice structure

ABSTRACT: Pure carbonyl iron (99.9%) and neodymium metal (99.5%) were smelted together in an arc furnace with a nonconsumable tungsten electrode in a purified helium atmosphere under a pressure of 300-400 mm Hg. The resulting alloys containing different proportions of Fe to Nd were remelted several times to assure homogeneity and annealed in evacuated quartz ampoules at 600 and 900°C for 130 hr. Subsequent microstructural and X-ray analyses of the sphere- and rod-shaped specimens showed that most of the obtained alloys are of two-phase kind and represent mechanical mixtures of solid solutions (based on pure components) with chemical compounds ($Fe_{17}N_2$ and Fe_2Nd). Such a type of constitution diagram largely deter-

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ACCESSION NR: AP5021942

mines the magnetic properties of these alloys. The magnetic properties were investigated with the aid of the magnetic scale described by V. I. Chechernikov (Vestnik MGU, ser. fiz., 1957, no 1, 47), at first in the ferromagnetic region. It turned out that in alloys containing from 10.52 to 85 at.% Nd, below the ferromagnetic Curie point θ_f there exists a temperature range in which magnetization decreases to a minimum whereupon it again rises, and then again drops to zero at $T = \theta_f$. The investigations were also carried out in the paramagnetic region, where they made it possible to calculate the effective magnetic moment P_p and the temperature of the paramagnetic Curie point. The temperature range of investigations in both the ferromagnetic and the paramagnetic regions was 300-1300°K. It is concluded from the findings that in the Fe-Nd alloy system there exists, along with the ferromagnetic, also an antiferromagnetic interaction which is most clearly manifested in the case of the one-phase compound $Fe_{17}Nd_2$. As the experiments revealed, in the region of existence of this compound the magnetic moment of alloy reaches a minimum and the paramagnetic Curie point is much lower than in pure iron. It is possible that a three-sublattice structure exists in the Fe-Nd system, with positive interaction existing between homogeneous atoms and negative interaction between the atoms of Fe and Nd. The magnetization of Fe-Nd alloys throughout the temperature range investigated is conditioned by the Fe atoms; it is not completely compensated, since the magnetic moment of the Fe atom exceeds that of the Nd atom. In conclusion the

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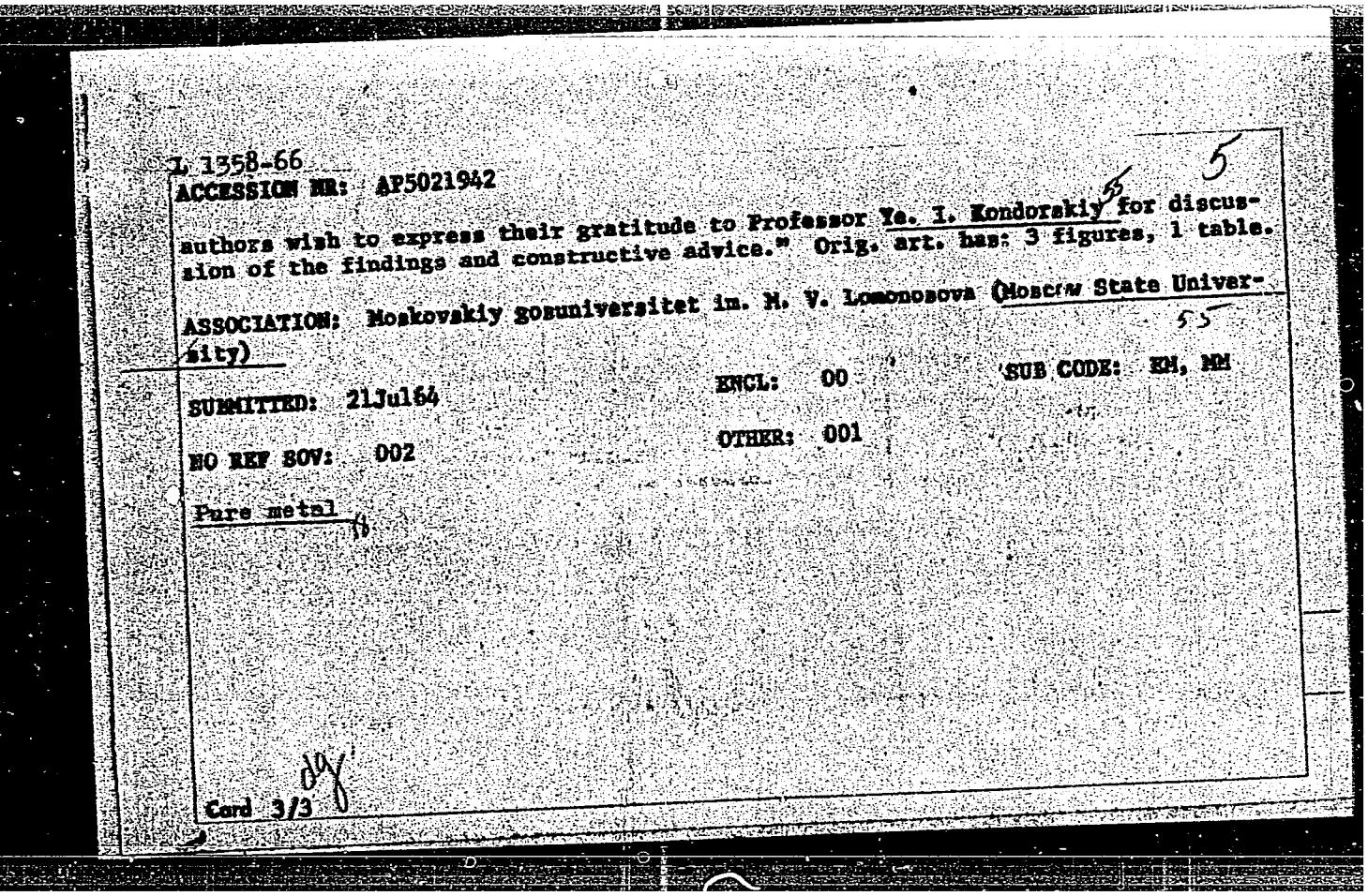

L 1358-66
ACCESSION NR: AP5021942

authors wish to express their gratitude to Professor Ye. I. Kondorskiy for discussion of the findings and constructive advice." Orig. art. has: 3 figures, 1 table.

ASSOCIATION: Moskovskiy gosuniversitet im. M. V. Lomonosova (Moscow State University)

SUBMITTED: 21Jul64 ENCL: 00 SUB CODE: EM, NM

NO REF SOV: 002 OTHER: 001

Pure metal

Card 3/3

3 Masolova, F.A.

5.3300(B)
5.1190

69662

S/180/60/000/02/025/028
E071/E135

AUTHORS: Katsobashvili, Ya.R., Kuz'mina, T.N., Kurkova, N.S., Kukhtichev, V.V., Levitskiy, E.A., Likhobabenko, V.S., and Masolova, F.A. (Moscow)

TITLE: Mechanically Strong Aluminonickel Catalyst for the Process of Destructive Hydrogenation

PERIODICAL: Izvestiya Akademii nauk SSSR, Otdeleniye tekhnicheskikh nauk, Metallurgiya i toplivo, 1960, Nr 2, pp 159-164 (USSR)

ABSTRACT: The process of destructive hydrogenation of crudes and residues under a moderate pressure in a circulating stream of a catalyst developed by the Petroleum Institute of the Academy of Sciences USSR (Ref 1) requires the application of catalysts which are resistant to wear. An investigation of the influence of conditions of preparation of aluminonickel catalysts, containing 10% of nickel oxide, on their mechanical strength is described in the present paper. The experiments were carried out on a small and pilot plant scale. The precipitation of mixed and separate aluminium and nickel hydroxides from 2N solutions of nitrates or sulphates was done with sodium hydroxide, controlling the pH of the medium, temperature

Card 1/3

of precipitation, ageing time of the precipitated hydroxides and, in the case of separate precipitation from sulphate salts, the amount of wash water on the residual content of sulphate ion. The experimental results obtained are given in tables: Table 1 gives the influence of pH of the medium during precipitation on the strength of the catalyst (experimental conditions: precipitation temperature 20 °C; ageing temperature 20 °C; washing with ammoniacal water at room temperature); Table 2 gives the influence of pH of the medium during precipitation on the strength of the catalyst (experimental conditions: duration of ageing 45 hours, pH during precipitation 9.6); Table 3 gives the influence of ageing on the mechanical strength of the catalyst (pH at the end of precipitation 9.6, precipitation and ageing at room temperature); Table 4 gives the influence of chemical composition on the content of sulphate ions in aluminonickel catalysts; Table 5 gives the properties of aluminonickel catalysts prepared by the method of separate

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precipitation. The activity of the catalysts prepared was tested under standard conditions of destructive hydrogenation at a moderate pressure (Ref 1) of sulphurous Tuymazin crude oil and compared with that of an industrial aluminomolybdenum catalyst. The experimental results are given in Table 6. It was found that in respect of their activity aluminonickel catalysts are not inferior to industrial aluminomolybdenum catalyst Nr 7360: the yield of liquid products amounted to 87-90%, the yield of coke to 2.7-3.8% and the degree of desulphurization to 76-88%. It is concluded that aluminonickel catalyst prepared under optimum conditions possesses satisfactory mechanical properties and activity for the process of destructive hydrogenation under a moderate pressure (30 atm).
There are 6 tables and 7 references, of which 5 are Soviet, 1 is English and 1 is German.

Card 3/3

SOV/137 59 2 3813

Translation from: Referativnyy zhurnal. Metallurgiya, 1959, Nr 2 p 218 (USSR)

AUTHORS: Popov, A. A., Maslova, F. F.

TITLE: The Effect of Inoculation and Casting Conditions on the Structure of Silumins (Vliyaniye modifitsirovaniya i usloviy otlivki na strukturu siluminov)

PERIODICAL: Tr. Ural'skogo politekhn. in-ta, 1958, Nr 68, pp 141-157

ABSTRACT: Investigations were carried out in order to determine how the micro and macrostructure of eutectic and hypoeutectic Silumins (S) of the types AL-2 and AL-9 is affected by inoculation, temperature of the liquid metal, and rate of cooling of the latter. The S's under investigation were heated to a specified temperature in a porcelain crucible of a capacity of 100-150 g and, after 10 minutes of soaking were treated with inoculants introduced in quantities ranging from 0.1 to 3.0% of the weight of the liquid S. The following compounds were tested as inoculants: silico-zirconium (- 50% Zr), iron-boron (5% B), $CaCl_2$, $BaCl_2$, and a mixture of salts (2/3 NaCl + 1/6 KCl + CaF_2). After inoculation and a soaking period of five minutes the S's were cast in different types of molds so as to ensure various rates of

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The Effect of Inoculation and Casting Conditions on the Structure of Silumins

cooling. It was established that the influence of the inoculating additives is indeed a function of the temperature of the S's and the rate of cooling of the castings. The following inoculants were found to be most effective: The mixture of salts mentioned above in a quantity of at least 0.1% and $CaCl_2$ or $BaCl_2$ in a quantity of not less than 0.6%. With reference to the S's of the type AL-2 and AL-9, it was confirmed that modified structure may be obtained not only with the aid of inoculating additives but also by means of increasing the temperature of the liquid S followed by accelerated cooling. Inoculation sharply changes the microstructure of the S, but leaves its macrostructure practically unaffected.

E. K

MASLOVA, F.G.

A problem in the spectral theory of differential operators.
Dokl. AN SSSR 152 no.4:820 O '63. (MIRA 16:11)

1. Matematicheskiy institut im. V.A. Steklova AN SSSR.
Predstavleno akademikom I.M. Vinogradovym.

MASLOVA, G.A.; STRUKOV, I.T.

α-Phenoxyacylaminocarboxylic acids and their derivatives. Zhur. ob. khim. 34 no.10:3411-3414 O '64.

New method of obtaining 3,5-disubstituted hydantoins. Ibid.:3506
(MIRA 17:11)

1. Laboratoriya organicheskogo sinteza Vsesoyuznogo nauchno-issledovatel'skogo instituta antibiotikov, Moskva.

L 45229-65

ACCESSION NR: AP5009021 S/0366/65/001/002/0340/0352

10

B

AUTHORS: Maslova, O. A.; Strukov, I. T.

TITLE: Polysynthetic penicillins. 1. Condensation of 6-aminopenicillic acid with azlactones and compounds with ethoxymethylene functions

SOURCE: Zhurnal organicheskoy khimii, v. 1, no. 2, 1965, 348-352

TOPIC TAGS: penicillin, organic derivative, molecular structure

ABSTRACT: The objective of this research was to produce and study penicillins with a structure differing from ordinary types (NHCO bond). Forms derived from 6-amino- [illegible] acid combined with a side chain by an NHCH bond were investigated. One

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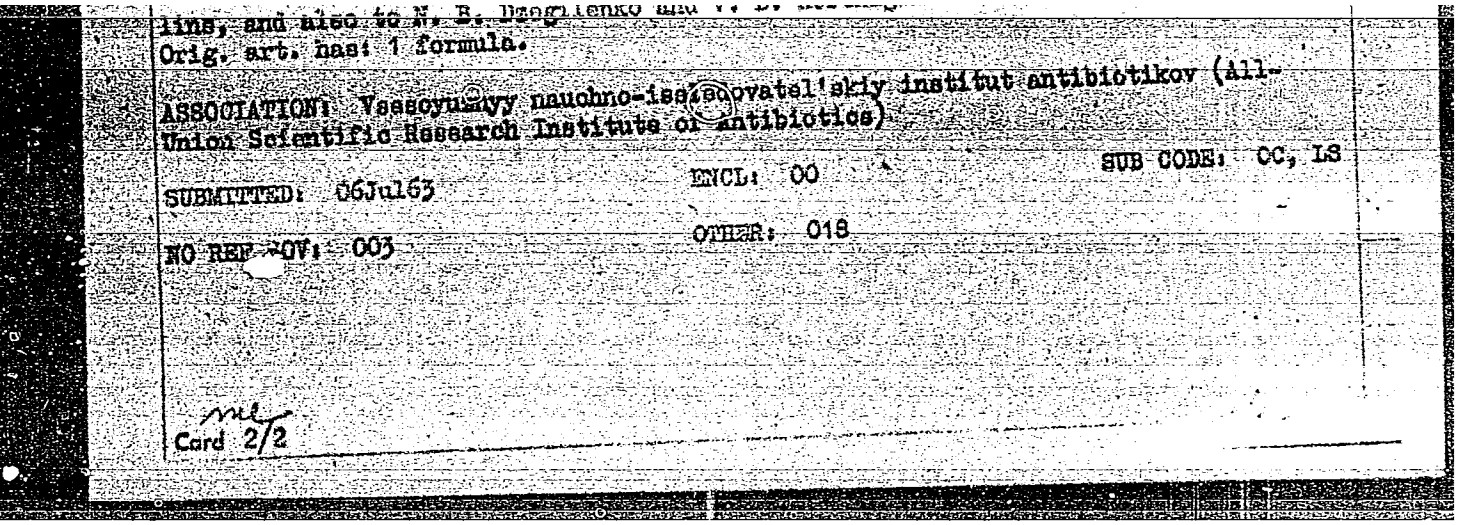
L 45229-65
ACCESSION NR: AP5009021

coli, the acid-fast saprophyte Mycobacterium phlei, and on several penicillin-producing staphylococci. The reason for the lack of antibiotic properties may lie



lins, and also to N. B. [illegible]
Orig. art. has: 1 formula.

ASSOCIATION: Vsesoyuznyy nauchno-issledovatel'skiy institut antibiotikov (All-Union Scientific Research Institute of Antibiotics)

SUBMITTED: 06Jul63 ENCL: 00 SUB CODE: CC, LS

NO REF SOV: 003 OTHER: 018

Card 2/2

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001032810004-2"

L 4280-66 EWT(m)/EWP(j)/T RM

ACCESSION NR: AP5024109 UR/0138/65/000/009/0049/0050
678.044.7:546/547.02

AUTHOR: Galybin, G. M.; Maslova, G. A.; Fedorova, M. I.

TITLE: Chemical composition of triethal

SOURCE: Kauchuk i rezina, no. 9, 1965, 49-50

TOPIC TAGS: rubber chemical, phthalic acid, triethanolamine, vulcanization

ABSTRACT: Triethal is used at the Yaroslavskiy shinnyy zavod (Yaroslavl Tire Plant) as a vulcanization activator replacing a combination of diphenylguanidine and altax. Its chemical composition was studied by determining the hydroxyl groups in organic compounds, determining the carboxyl groups by titrating with alkali in an alcohol medium, and determining nitrogen in organic compounds by the Kjeldahl method. It was found that triethal is a mixture of complex chemical products formed by the reaction of phthalic anhydride with commercial triethanolamine. It consists of esters (about 80%), a crystalline organic salt which has no vulcanizing properties, and excess triethanolamine. The influence of triethal and its components on the properties of inner-tube rubbers was determined. Orig. art. has: 1 table.

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L 4280-66

ACCESSION NR: AP5024109

2

ASSOCIATION: Yaroslavskiy shinnyy zavod (Yaroslavl Tire Plant) 44

SUBMITTED: 00 ENCL: 00 SUB CODE: OC, GC

NO REF SOV: 005 OTHER: 000

Card 2/2

MASLOVA, G.A.; STRUKOV, I.T.

Amide-imidol tautomerism in the penicillin series. Antibiotiki 10 no.11:1005-1010 N '65. (MIRA 19:1)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut antibiotikov, Moskva. Submitted April 15, 1964.

5(2)

S/078/60/005/02/019/045
B004/B016

AUTHORS: Maslova, G. B., Nazarov, P. P., Chmutov, K. V.

TITLE: Separation of Some Radioactive Rare Earths by Means of Chromatography

PERIODICAL: Zhurnal neorganicheskoy khimii, 1960, Vol 5, Nr 2, pp 359-365 (USSR)

ABSTRACT: The authors report on the chromatographic separation of radioactive La, Ce, Pr, Nd, Pm, and Y on the ion exchanger KU-2 (experiments with SDV-3 resin were less successful). The isotopes La^{140}, Ce^{141} + $Ce^{144} \rightarrow Pr^{144}$, Pr^{143}, Nd^{147}, and Y^{91} were formed by bombarding uranium with thermal neutrons in the pile. As complexing agents, lactic acid (Figs 1,2), and pyrophosphoric acid (Fig 3) were used. The experiments with lactic acid are described in the experimental part (Table 1, Figs 4,5). The stability constants of the lactate complexes of Ce, Nd, and Y were determined by potentiometric titration and ion exchange (Tables 2,3). The authors cite V. I. Paramonova (Ref 5). There are 5 figures, 3 tables, and 15 ref-

Card 1/2

Separation of Some Radioactive Rare Earths by Means of Chromatography

S/078/60/005/02/019/045
B004/B016

erences, 3 of which are Soviet.

SUBMITTED: September 16, 1958

Card 2/2

NIKITIN, Nikolay Nikiforovich; MASLOVA, Galina Gerasimovna

[Collection of problems in geometry] Sbornik zadach po geometrii. Moskva, Uchebno-pedagog.izd-vo. Vol.1. [Plane geometry for grades 6 and 7 of the secondary school] Planimetriia dlia 6 i 7 klassov srednoi shkoly. 1958.

(MIRA 13:8)

(Geometry, Plane--Problems, exercises, etc.)

ASHKINUZE, V.G., nauchnyy sotrudnik; GIBSH, I.A., nauchnyy sotrudnik; MASLOVA, G.G., nauchnyy sotrudnik; NESHKOV, K.I., nauchnyy sotrudnik; NIKITIN, N.N., nauchnyy sotrudnik; SEMUSHIN, A.D., nauchnyy sotrudnik; FETISOV, A.I., nauchnyy sotrudnik; KOSTELOVSKIY, V.A., red.; TARASOVA, V.V., tekhn.red.

[Teaching mathematics in schools in the 1959/60 school year] O prepodavanii matematiki v shkole v 1959/60 uchebnom godu. Pod red. A.D.Semushina. Moskva, 1959. 135 p. (MIRA 13:5)

1. Akademiya pedagogicheskikh nauk RSFSR, Moscow. Institut metodov obucheniya. 2. Sektor metodiki prepodavaniya matematiki Instituta metodov obucheniya Akademii pedagogicheskikh nauk RSFSR (for all except Kostelovskiy, Tarasova).
(Mathematics--Study and teaching)

MASLOVA, Galina Gerasimovna; VIKULINA, M.K., red.; DOBROKVASHINA, A.M., tekhn.red.

[Methods of teaching the solution of construction problems in eight-year schools] Metodika obucheniia resheniiu zadach na postroenie v vos'miletnei shkole. Moskva, Izd-vo Akad.pedagog. nauk RSFSR, 1961. 151 p. (MIRA 14:12)
(Geometry--Problems, exercises, etc.)

MASLOVA, G.G. (Moskva)

Book of problems in geometry for the grades 6-8 of the eight-year schools. Mat. v shkole no.4:58-63 Jl-Ag '61. (MIRA 14:8)
(Geometry--Problems, exercises, etc.)

MASLOVA, G.G. (Moskva)

Programmed instruction. Mat. v shkole no.2:35-40 Mr-Ap '63. (MIRA 16:4)
(Programmed instruction) (Teaching machines)

MASLOVA, G.I.

Changes in the functional indices of external respiration in response to a controlled physical load. Trudy TSIU 77:19-24 '65. (MIRA 18:9)

1. Kafedra lechebnoy fizicheskoy kul'tury i vrachebnogo kontrolya (zav. chlen-korr. AMN SSSR prof. V.N. Moshkov) TSentral'nogo instituta usovershenstvovaniya vrachey.

ORESHKO, V.F. [deceased]; GORIN, L.F.; MASLOVA, G.M.

Effect of ionizing radiation on the sizing of starch. Izv. vys. ucheb. zav.; pishch. tekh. no.4:35-38 '61. (MIRA 14:8)

1. Moskovskiy tekhnologicheskiy institut pishchevoy promyshlennosti, kafedra neorganicheskoy khimii.
(Gamma rays--Industrial applications)

MASLOVA, G.M.

Photomicrographic method of studying the process of sizes formation in starch. Izv.vys.ucheb.zav.; pishch.tekh. no.3:157-160 '62.
(MIRA 15:7)

1. Moskovskiy tekhnologicheskiy institut pishchevoy promyshlennosti, kafedra neorganicheskoy khimii.
(Photomicrography) (Starch)

ORESHKO, V. F.[deceased]; GORIN, L. F.; KOROTCHENKO, K. A.; MASLOVA, G. M.; CHERNENKO, L. Ye.; SHAKHOVA, N. G.

Radiation chemistry of starch. Izv. vys. ucheb. zav.; pishch. tekh. no.5:32-37 '62. (MIRA 15:10)

1. Moskovskiy tekhnologicheskiy institut pishchevoy promyshlennosti, kafedra neorganicheskoy khimii.

(Starch) (Radiochemistry)

MASLOVA, G.M.; GORIN, L.F.

Effect of the grain size on the temperature of gelatinization of potato starch. Izv. vys. ucheb. zav.; pishch. tekh. no.6: 16-19 '63. (MIRA 17:3)

1. Moskovskiy tekhnologicheskiy institut pishchevoy promyshlennosti, kafedra neorganicheskoy khimii.

SKULACHEV, V.P.; MASLOV, S.P.; SIVKOVA, V.G.; KALINICHENKO, L.P.; MASLOVA, G.M.

Cold uncoupling of oxidation and phosphorylation in the muscles of albino mice. Biokhimiia 28 no.1:70-79 Ja-F '63. (MIRA 16:4)

1. Chair of Animal Biochemistry, State University, Moscow.
(PHOSPHORYLATION) (OXIDATION, PHYSIOLOGICAL)
(COLD--PHYSIOLOGICAL EFFECT)

MASLOVA, G.M.; PUTILOVA, I.N.

Changes occurring in potato starch grains under the effect of Co^{60} gamma rays. Izv.vyssh.ucheb.zav.; pishch. tekh. no.3:28-35 '63. (MIRA 16:8)

1. Moskovskiy tekhnologicheskiy institut pishchevoy promyshlennosti, kafedra neorganicheskoy khimii.
(Starch) (Gamma rays)

L 56009-65

ACCESSION NR: AP5015654 UR/0217/65/010/003/0538/0539

577.37

AUTHOR: Maslova, G. M.; Maslov, S. P.; Shnol', S. E. 11 B

TITLE: Acceleration of the germination of Tradescantia paludosa pollen by sonic vibrations in the audible range

SOURCE: Biofizika, v. 10, no. 3, 1965, 538-539

TOPIC TAGS: microspore, vibration, biological effect, germination, sound stimulus, Tradescantia paludosa, pollen

ABSTRACT: Research in the last two decades has shown that sound has direct influence on the living cell (although the mechanism of this influence is not understood), characterized by contraction of muscle fibers, stimulation of the growth of plants, etc. In this work pollen of Tradescantia paludosa was placed on a platform of a generator of mechanical vibrations attached to a tone generator, which was the source of sonic vibrations (frequencies 100—3000 cps) to which the pollen was subjected. The amplitude of movement of the vibrator in the range of operating frequencies varied from 0.4 to 0.013 μ. Pollen dried in an exsiccator with $CaCl_2$ was sown on cellophane sheets moistened with 1% agar and 12% sucrose and then placed in

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L 56008-65

ACCESSION NR: AP5015654

a chamber with controlled humidity and temperature (22.5C). Grains began to sprout after 10—15 min. The length of the experiment and the first check was 16 min, and the second check was 1 hr. In all the cases the number of germinated experimental grains exceeded the number of germinated controls. Fifty-nine experiments were conducted at 1000 cps to compensate for the great variability of the material. It was concluded that germination of Tradescantia paludosa pollen is accelerated under the influence of sonic vibrations in the audible range. Stimulation is especially great when the pollen has a limited germinating capacity. This was proved by an experiment in which seeds were left for several days in the exsiccator (instead of one day as before). In 41 out of 61 experiments, pollen germinated under the influence of sound for 1 hr, but the controls didn't germinate at all. Because of the statistical heterogeneity of the material, a frequency characteristic of this effect was not obtained. Orig. art. has: 1 figure and 1 formula. [JS]

ASSOCIATION: Institut biologicheskoy fiziki AN SSSR (Institute of Biophysics, AN SSSR); Fizicheskiy fakultet Moskovskogo gosudarstvennogo universiteta im. M. V. Lomonosova (Physics Faculty of Moscow State University)

SUBMITTED: 20Mar63 ENCL: 00 SUB CODE: LS, GP

NO REF SOV: 004 OTHER: 000 ATD PRESS: 4031

Card 2/2 Cat.

1. MASLOVA, G. S.

2. USSR (600)

4. Volga Valley - Farm Buildings

7. Russian buildings of the middle Volga region. Sov. etn. No. 1, 1953.

9. Monthly List of Russian Accessions, Library of Congress, April 1953. Unclassified.

MASLOVA, G. S.

"Problemy i metody izucheniya material'noy kul'tury (opyt raboty sovetskikh uchenykh)."

report submitted for 7th Intl Cong, Anthropological & Ethnological Sciences, Moscow, 3-10 Aug 64.

MASLOVA, G. V.

USSR/Microbiology - General Microbiology.

F-1

Abs Jour : Ref Zhur - Biologiya, No 7, 1957, 26243

Author : Maslova, G.V.
Inst :
Title : A Microbiological Characterization of the Yeast-Like Fungus of Genus Trichosporon.

Orig Pub : V sb.: Eksperim. i klinich. issledovaniya, II. L., Medgiz, 1956, 131-132

Abst : No abstract.

Card 1/1

MASLOVA, G V

USSR /Microbiology. Medical and Veterinary Microbiology. F-6

Abs Jour: Referat. Zh.-Biol., No. 9, 1957, 35785

Author : Glukhovtsev, B.V.; Kurushina, T.M.; Maslova, G.V.

Title : Characteristics of the Yeast Flora in Various Skin Infections

Orig Pub: V. sb: Eksperim. i klinich. issledovaniia II, L, Medgiz, 1956, 335-336

Abstract: 6232 examinations of persons sick with various forms of skin diseases were conducted. In 305 cases various yeasts, primarily C.albicans (118 cases), and other representatives of the genus Candida (76 cases) were isolated. In 19% of the positive cases fungi of the specie Trichosporon were isolated. A supposition is expressed about the identity of Trichosporon and Geotrichoides.

Card 1/1

MASLOVA, G. V.; GOLOVKIN, N. A.

"Biophysical studies of the state of fish muscle during chilling and cold storage."

Report presented at the 11th International Congress of Refrigeration, (IIR), Munich, West Germany, 27 Aug-4 Sep 63.

ACC NR: AT6035507 SOURCE CODE: UR/2531/66/000/185/0003/0014

AUTHOR: Berlyand, M. Ye. (Doctor of physico-mathematical sciences); Genikhovich, Ye. L.; Maslova, Ye.

ORG: none

TITLE: Theory of the relationship of atmospheric aerosol concentrations to their flow on horizontal plates

SOURCE: Leningrad. Glavnaya geofizicheskaya observatoriya. Trudy, no. 185, 1966. Voprosy atmosfernoy diffuzii i zagryazneniya vozdukha (Problems of atmospheric diffusion and air pollution), 3-14

TOPIC TAGS: micrometeorology, ~~atmospheric~~ air pollution, atmospheric diffusion, aerosol, ~~aerosol sampling~~, ~~sampling plate~~, meteorological computer, special purpose computer, computer calculation, gas flow

ABSTRACT: Results are presented of studies of the theory defining the settling of aerosols from the atmosphere onto horizontal collecting plates, the relationship between the amounts of pollutants collected on the plates and the actual pollutant concentration at the level of plate installations, the effects of plate dimensions and meteorological factors, etc. These plates usually have dimensions of several

Card 1/3 UDC: none

tenths of a meter, are installed one to several meters above the ground surface, are coated with an adhesive, and are assumed to be absolutely absorbent. During an inflow of air, the aerosol particle distribution is disrupted, resulting in differences in pollutant concentrations on the plates and in the surrounding medium. Equations are derived to express the process of turbulent diffusion of aerosols above a plate; the fields of motion velocity and the exchange coefficients are taken into account.

The parabolic equation of turbulent diffusion of the aerosol was converted to a difference equation and solved numerically on a Ural-4 computer. This computer permitted storage of up to 400 points along x in a single layer, i.e., up to 400 values of the solution could be stored for fixed x. The computations were carried out for different values of the input quantities V (wind speed of inflowing air), K (the turbulence coefficient in the inflowing air), w_0 (the gravitational rate of aerosol settling), and L (plate length). The results indicated that turbulent aerosol flows have comparatively little dependence on changes in w_0 in the 0—0.1 m/sec range.

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The formulas derived permit estimation of the dependence of a vertical aerosol flow on plate dimensions and metecrological conditions, as characterized by values of the wind velocity and the exchange coefficient at the level of the plate. The dependence of the ratio of vertical aerosol flows to their concentrations at the height at which the plate is installed was established. The values obtained here are considerably lower than those of the simplest case, in which the flow around the plate is not considered, the horizontal component of the wind velocity u and the exchange coefficient k are not height dependent, and the vertical component w coincides with the gravitational rate of aerosol settling. Orig. art. has: 3 figures and 27 formulas.

[WA-50; CBE No. 14]
[EO]

SUB CODE: 04/ SUBM DATE: none/ ORIG REF: 008/ OTH REF: 001

Card 3/3

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Change in oxidation-reduction potential in methane fermentation of organic substances. Prikl. biokhim. i mikrobiol. 1 no.2:[illegible] Mr-Ap '65. (MIRA 18:11)

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Ultramicrochemical investigation of the composition of liquid and gaseous phases of two-phase inclusions found in Volhynian quartzes. Geokhimii no.2:169-173 '61. (MIRA 14:3)

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1. Sredneaziatskiy nauchno-issledovatel'skiy institut geologii i mineral'nogo syr'ya, Tashkent, i Institut geologii rudnykh mestorozhdeniy, mineralogii, petrografii i geokhimii AN SSSR, Moskva.
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Improvement of apparatus used in ultramicroanalysis. Zav. lab. 30 no.9:1145-1146 '64. (MIRA 18:3)

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MASLOVA, I.N.; YESIKOV, A.D.

Technique of electrometric methods in ultramicrochemical analysis. Zav.lab. 31 no.10:1270-1272 '65.

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MASLOVA, I. P.

"Comparative Clinical and Anatomical Study of Different Methods of Primary Surgical Treatment of Eye Wounds." Cand Med Sci, Central Inst for the Advanced Training of Physicians, Min Health USSR, Moscow, 1955. (KL, No 11, Mar 55)

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VASIL'YEVA, N.N., kand. med.nauk; GOLUBEVA, K.I., kand. med. nauk; GUL'KEVICH, Yu.V., prof.; DAL', M.K., doktor med.nauk, prof.; IL'INA, A.V., kand.med. nauk; LEVKOYEVA, E.F., doktor med.nauk, prof.; MASLOVA, I.P., kand. med.nauk; PRIGOZHINA, A.L., kand. med.nauk; UGRYUMOV, B.P., prof.; SHATILOVA, T.A., kand. med.nauk; SHCHEGLOVA, A.A., kand. med.nauk; DVIZHKOV, P.P., prof., red. toma; STRUKOV, A.I., prof., red. toma; OSTROVERKHOV, G.Ye., prof., glav. red.; APATENKO, A.K., kand. med. nauk, nauchn. red. toma

[Multivolume handbook on pathological anatomy] Mnogotomnoe rukovodstvo po patologicheskoi anatomii. Otv. red. A.I. Strukov. Moskva, Medgiz. Vol.1. [History of pathological anatomy; pathological anatomy of the endocrine glands, skin, ear, and eye] Istoriia patologicheskoi anatomii; patologicheskaia anatomiia zabolevanii endokrinnykh zhelez, kozhi, ukha i glaza. Red. toma: P.P.Dvizhkov i dr. 1963. 670 p. (MIRA 16:11)

1. Chlen-korrespondent AMN SSSR (for Strukov).
(ANATOMY, PATHOLOGICAL)

USSR / Human and Animal Morphology - Sense Organs. S

Abs Jour : Ref. Zhur. - Biol., 22, 1958, No. 101524

Author : Maslova, I.P.
Inst : State Scientific Research Institute of Eye Diseases
Title : The Structure of the Epithelium of the Normal Conjunctiva of the Eyelid as Studied by Electron Microscopy.

Orig Pub : Uch. zap. i inform. metod. materialy. Gos. n.-i. in-t glazn. bolezney, 1957, No. 5, 67-72.

Abstract : Using both light and electron microscopy, studies were made of scrapings of the epithelium of the conjunctiva of eyelids of 30 healthy persons and 15 rabbits. Comparisons are made of the results obtained by both methods. It is noted that, with the use of electron microscopy, considerably greater detail of the intra-cellular structures can be seen.

Card 1/1

1035. THE STRUCTURE OF THE EPITHELIUM OF THE NORMAL PALPEBRAL CONJUNCTIVA UNDER THE ELECTRON MICROSCOPE (Russian text) - Maslova I. P. - UCH. ZAP. I INFORM. METOD. MAT INST. GLAZ. BOLEZ. IM. GELMGOLTSA (Moskva) 1957, 5 (67-72)

The epithelial membranes were fixed for 1-3 days with 5-8% formalin. In the making of the preparations the method of mechanical cleavage was used, with separation of the epithelial layer into individual cellular elements with the aid of fine needles. A droplet of fine suspension was placed on a standard grating 2 mm. in diameter, which was preliminarily covered with a fine layer of varnish. The objects were investigated with the aid of an EM-3 electron microscope at 50 kv., with an enlargement of 3,000-4,000 times. The internal structure of the nucleus of the epithelial cells was practically indistinguishable due to its considerable thickness. Granules of various size and density were visible in the cytoplasm of the epithelium. Cytoplasmic ground substance occupied the space between the granules in the form of a network of fine threads, droplets and canaliculi. In certain cells there were seen fine protoplasmic islets containing granules of various density. Between the cells there were delicate protoplasmic bridges, joining them into a single layer. Inclusions were less numerous in the superficial than in the basal cells.

(S)

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[Aging and stabilization of polymers] Starenie i stabilizatsiia polimerov. Moskva, Izd-vo "Nauka," 1964. 330 p. (MIRA 17:3)

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BURMISTROV, Ye.F.; MIKHAYLOV, V.V.; MASLOVA, I.P.; VLADIMIROV, S.

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